



# TECH DATA SHEET

## REPORTER VIRUS PARTICLES

### DESCRIPTION

|                          |                                                        |
|--------------------------|--------------------------------------------------------|
| <b>Product</b>           | RVP-1214L, Influenza A Reporter Virus Particles (RVPs) |
| <b>Lot</b>               | IAL-772A                                               |
| <b>Subtype</b>           | H5N1                                                   |
| <b>Strain</b>            | American Wigeon/SC/22-000345-001/2021                  |
| <b>Reporter</b>          | <i>Renilla</i> Luciferase                              |
| <b>Size</b>              | 1.0 mL/vial                                            |
| <b>Packaging</b>         | 20% FBS/DMEM                                           |
| <b>Recommended Input</b> | 2.5µL per well (96-well plate) for a S:B ≥ 200*        |
| <b>Mycoplasma Test</b>   | Negative                                               |
| <b>Expiration Date</b>   | November 2027                                          |

### SAFETY & HANDLING

|                              |                               |
|------------------------------|-------------------------------|
| <b>Shipping</b>              | Shipped on dry ice            |
| <b>Stability and Storage</b> | Store at ≤ -80°C upon receipt |

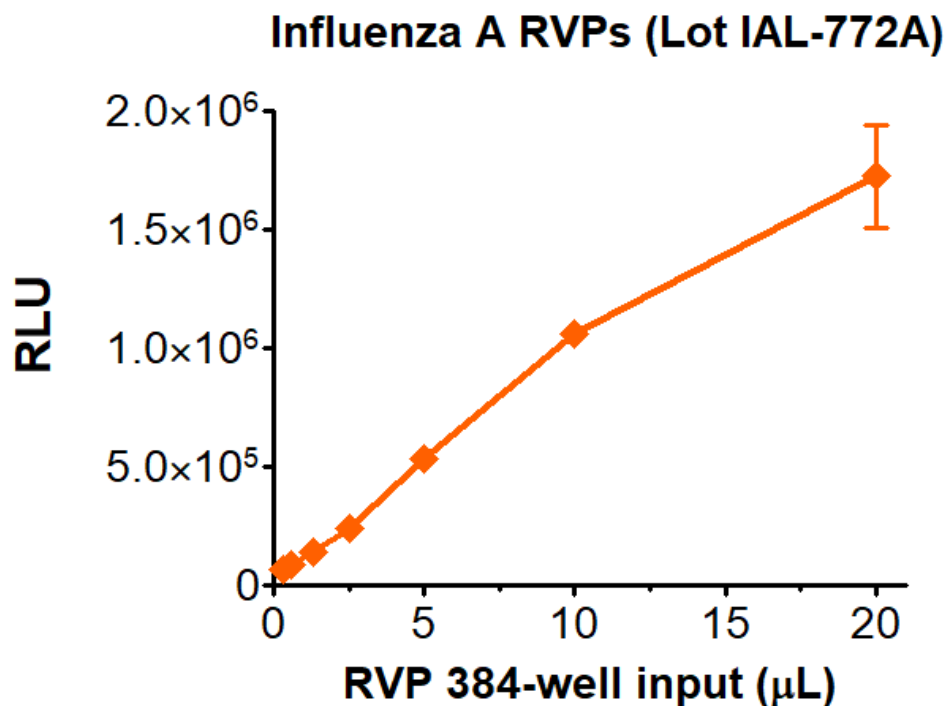
\* Determined in the HEK-293T cell line. Signal-to-background values can vary depending on instrument make, model, and/or calibration.

Influenza A RVPs are used to test the ability of serum, antibodies, and drugs to neutralize infectivity. RVPs display antigenically correct HA/NA protein pseudotyped on replication-incompetent virus particles that contain a heterologous lentiviral (HIV) core. RVPs are capable of a single round of infection and carry a genome that expresses either a GFP or luciferase optical reporter gene upon infection. RVPs are produced in HEK-293T cells using four separate plasmids, encoding the HA protein, the NA protein, a lentiviral gag polyprotein, and a reporter gene.

RVPs are created using a second-generation lentiviral system with components that are highly unlikely to recombine to produce a fully infectious virus (requiring 3 separate recombination events to do so). However, lentiviruses are capable of genomic integration and RVPs are derived from biological materials so should be handled with caution within a BSL2 or enhanced BSL2 laboratory environment. RVPs are not to be used in humans or in animals raised for food.

Thaw tubes in a 37°C water bath for 3 minutes and place on ice until ready to use. RVPs will appear as a translucent solution. Gently mix prior to use and pulse tube for 3 seconds at high speed in a tabletop microfuge to recover all volume from the tube. Vortexing of RVPs should be avoided. Re-freezing of RVPs is not recommended.

## INFECTIVITY DATA



Infectivity determined in HEK-293T cells. Infectivity data represents the average of three independent vials, each tested in quadruplicate.

*Renilla* luciferase activity measured using the Promega *Renilla*-Glo luciferase assay system (Promega #E2710). Sample luminescence was read using a Perkin-Elmer Envision plate reader.

| SIGNAL TO BACKGROUND    |                    |
|-------------------------|--------------------|
| RVP 384-well Input (μL) | Signal: Background |
| 20                      | 4,014              |
| 10                      | 2,480              |
| 5                       | 1,263              |
| 2.5                     | 573                |
| 1.25                    | 326                |
| 0.63                    | 205                |
| 0.31                    | 161                |

Signal to background is calculated using mock infected cells as the negative control value.